



NUCLEAR DIVISION NEWS

A Newspaper for Employees of the Nuclear Division, Union Carbide Corporation

Vol. 4 — No. 10

May 17, 1973

QUESTION BOX

If you have questions on company policies, benefits, etc. or any other problems with which we might help, just let us know. Drop your inquiry to the Editor, Nuclear Division News. (Or telephone it in to your plant news representative . . . see page two). You may or may not sign your name. It will not be used in the paper if you so desire.

Questions are referred to the proper authorities for accurate answers. Each query is given serious consideration for publication.

Answers may be given to employees personally if they so desire.

QUESTION: Why does Union Carbide continually bring back retired employees as "consultants?" Certainly an employee's retirement is known far enough in advance to give ample time for training a replacement before retirement - not after. In light of the present budgetary situation, will these "consultants" continue to fill positions that might otherwise be filled by competent personnel being released? Also, does Union Carbide ever bring back an hourly or weekly employee as a consultant?

ANSWER: The Nuclear Division has only a relatively small number of professional employees who remain with the organization as consultants on an intermittent basis for periods of from several months to a few years following retirement. These individuals are performing assignments where their skills and experience are highly valuable to the Nuclear Division and are not easily replaced.

Currently, about 33 former employees are used in this capacity, and over one-third receive no compensation for their work. No hourly or weekly employees have been engaged after retirement as consultants.

QUESTION: When a person walks west on the sidewalk from the intersection of Fifth Avenue and Central (at ORNL), there is a safety hazard caused by sharp-cornered fire alarm boxes projecting out over the sidewalk. People have been bruised by them and some people have been cut. The Occupational and Health Authority has issued more citations for unsafe walking and working space violations than for any other violation.

Can the Oak Ridge National Laboratory continue to ignore safe practices when fire prevention is concerned?

Fire alarm boxes projecting from the walls of corridors are unsafe too. Will any corrective action be taken?

ANSWER: Your question pertaining to fire alarm boxes on Central Street refers to two boxes mounted on telephone poles located adjacent to the sidewalk. Both boxes are painted a conspicuous red and white and are in plain view of pedestrian traffic. Neither of these

boxes significantly restricts sidewalk space and should not create an unsafe walking condition to anyone exercising reasonable caution. However, in order to further reduce any possibility of someone inadvertently walking into one of them, a red and white guide board will be mounted under both alarms.

With respect to fire alarm boxes mounted on corridor walls, many of these boxes are partially recessed and project into the corridor only a few inches. In any event, alarm boxes must be located in plain view and must be immediately accessible if they are to be effective for fire protection purposes.

We believe that the location of fire alarm boxes is in compliance with the Occupational Safety and Health Act.

QUESTION: Who is throwing out sacks of household garbage regularly along road shoulders in the plant area? I see the results each week along highway 58 from the "Y" to the X-10 connector. Can anything be done to discourage this use of roadsides for household trash disposal? Might it not be cheaper for UCND to place some large roadside containers or dumpsters at all entrances to the plant area? This would (1) save the dumpers those extra miles; (2) save the pick-up crews a lot of work, and (3) reduce the visual blight considerably.

ANSWER: We share your concern about personal trash disposal on public property. Highways 58 and 95 are state routes, and it has been difficult to confirm the extent of clean-up effort required there. On Bear Creek, Bethel Valley and other plant area roads, we are aware of the litter problem; however, the nature of the litter leads us to believe the source is more likely from transients and juveniles, rather than employee traffic. Consequently, we do not believe your suggestion would alleviate the problem.

Next Issue

The next issue will be dated June 7. The deadline is May 29.



William Russell



Liane Russell

Liane and W.L. Russell awarded Roentgen medal

William L. and Liane B. Russell, geneticists in ORNL's Biology Division, were recently awarded the Roentgen Medal for their studies of the genetic effects of radiation in mice.

The world-renowned husband and wife team was honored at a ceremony held in Remscheid-Lennep, Germany, by the Society of Friends and Sponsors of the Roentgen Museum. Both Russells present-

ed talks to the group. William Russell spoke on "Roentgen Rays and Mutagenesis in Mammals," and Mrs. Russell's talk was on "The Nature of Radiation-Induced Genetic Changes in Mice."

The city of Remscheid-Lennep, which is the birthplace of Wilhelm Roentgen, the discoverer of X-ray, awards the medal at irregular intervals. The medal was established in 1951 to be awarded to "individuals whose work has contributed outstandingly to the progress of research and applied science based on Roentgen's discovery." Only four other Americans have received the Roentgen Medal. The Russells are the first American biologists to receive it.

The Russells' studies on the genetic effects of radiation in mice have yielded a series of surprises since their initial work with fruit flies. Their work with mice is the main body of knowledge on which estimates of the genetic hazards of radiation to man can be based.

In addition to being the first woman to receive the Roentgen Medal, Mrs. Russell is the youngest person ever selected. She is famous for her work in the late 1940s and early 1950s on the hazardous effects of X-rays on the unborn embryo. Her studies first provided the understanding of the different stages of the embryo's sensitivity to X-rays, and suggested that high risk to the human embryo occurs if the mother is X-rayed in the early weeks of pregnancy.

William and Liane Russell joined the ORNL staff in 1947. Both of them received the Ph.D. degree from the University of Chicago. The Russells, who live at 130 Tabor Road, Oak Ridge, are active in the local conservation efforts.

1972 AEC payrolls reach all-time high

Payrolls associated with the U.S. Atomic Energy programs in Oak Ridge rose to an all-time high last year. A total of \$176,426,222 in paychecks was distributed in wide-spread areas of East Tennessee.

Again out-of-towners dominated the 1972 payroll figure. More than 57.7 percent of the employees in the three plants here, the AEC - Oak Ridge Operations, the Oak Ridge Associated Universities and The University of Tennessee Agricultural Research Laboratory, commuted to the Atomic City. Oak Ridge claimed a payroll of \$74,673,956, or 42.3 percent of the total employment.

"Oak Ridge atomic energy program payrolls continue to exert a dominate impact on the economy of the region," Robert J. Hart, manager of AEC-ORO, stated, "A study of the AEC-contractor payroll distribution reveals that residents living in such areas as Knoxville, Clinton, Kingston and Lenoir City are receiving an increasing percentage of the total payroll."

Savings Bond drive shows an increase in payroll deductions

The U.S. Savings Bond drive, now in full gear in the four Nuclear Division plants, promises encouraging results, according to drive chairmen.

The General Accounting Division of the General Staff is the first full division to go 100 percent in payroll savings. The Purchasing Division, also of the General Staff, awaits only one signature from an employee on vacation.

The two gaseous diffusion plants, Paducah and Oak Ridge, still compete in who shall be first. The Oak Ridge Gaseous Diffusion Plant reports 80 percent of its employees on payroll savings now. Paducah has not filed an initial report, but it is expected the competition will get hotter.

With most of the cards in, ORGDP reports the following departments a full 100 percent: Shift Operations and Security Division, Stores Department, Nuclear Safety, Cafeteria, Fire Prevention, Security, Waste Management and Pollution Control, Fabrication and Maintenance Administration, B Shift Barrier Maintenance, Barrier Inspection, Barrier Clerical, Capacity Expansion, Employment, Compensation, Fire Department, K-1231 Manufacturing, Plant Superintendents Division, Operation Planning, Electrical Engineering, Instrument Engineering, Facility Engineering, K-32 Electrical Maintenance, K-29 Electrical Maintenance and Instrument Maintenance, Janitors (4-12 Shift), Uranium Control, Engineering Reproduction, Plant Records, Photography, Engineering Data Center, Budget, Finance and Materials Administration, Laboratory Division Administration, ORGDP Superintendent Division, Timekeeping, Cashier, Materials Services, Traffic, Receiving and Shipping, A Shift Barrier Maintenance, C Shift Barrier Maintenance, Maintenance Engineering, Compressor Shop, K-32 Instrument Maintenance, Garage, Guard Department, Heavy Equipment and Transportation.

In addition to the General Accounting Division and encouraging reports from Purchasing, the General Staff also reports Central Employment in the 100 percent bracket.

The Y-12 Plant, with only scattered reports in, shows three departments in

Engineering -- Construction Engineering, Estimating Engineering and Engineering Procurement -- in the 100 percent participation group. They also show Wage and Salary Administration fully participating.

The Oak Ridge National Laboratory reports the Medical Physics and Internal Dosimetry Section of the Health Physics Division savings 100 percent through payroll deductions.

The many advantages of purchasing U.S. Savings Bonds, through payroll deductions, have been stressed throughout the entire drive, concentrating mainly on the painless way to augment retirement money, or those extra funds required to send children to college. It is also a good way to combat inflation, supporting our country and its efforts to halt runaway spending.

Currently the Paducah Plant holds the Number One Flag. They shall attempt to put a star on it, rather than lose it to another plant, namely the other gaseous diffusion plant in Oak Ridge.



Y-12 PLANT

CAR POOL members from Norwood section, Knoxville, to any portal, straight day. W.K. Forrester, plant phone 3-5923, home phone Knoxville 687-3294.

RIDE from Crestforest Road, off Fox Lonas, near Hidden Valley off Middlebrook, to North Portal, straight day. Alice Hager, plant phone 3-7295.

ORGDP

JOIN car pool from vicinity of West Outer Drive - Wainwright, Oak Ridge, to Main Portal, 7:45 a.m. - 4:15 p.m. Angie Fincher, plant phone 3-3034, home phone Oak Ridge 483-3443.

ORNL

CAR POOL MEMBER from Windham Road area in Oak Ridge to East or South Portal, 8 a.m. shift. Monty Lewis, plant phone 3-1612, or home phone Oak Ridge 483-7244.

JOIN or FORM car pool from Garden Apartments in Oak Ridge to either portal, 8:15 a.m. shift. Charles Klabunde, plant phone 3-1128, or home phone Oak Ridge 483-8055.



PADUCAH BOND LEADERS — Paducah's bond chairmen meet for a preliminary session above. Clockwise are James R. Story, G. Keith Bryant, David M. Dodson, Barbara K. Hook, Chairman Robroy Millican, B.R. Peebles, Gene R. Miller, David M. Massey, Donald E. Gordanier and Gladys I. Adams.



TELECOMMUNICATIONS SECTION — 100 PERCENT!



MEDICAL PHYSICS, INTERNAL DOSIMETRY — ORNL — 100 PERCENT!

NUCLEAR DIVISION NEWS

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NUCLEAR DIVISION

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ORGDP STORES DEPARTMENT — 100 PERCENT!



A FEW WINNERS — Representative of the 177 winners in the first drawing held by Y-12 are the above employees. From left are Homer Young, Material Control, who won a mink stole; W.R. McGill, Shift Superintendents, who won an electric shaver; John E. Davidson, Guard Department, who also won an electric shaver; Frank Patt, Area Five Maintenance, who won a console color TV; Robert B. Briggs, an ORNL employee in Y-12, an electric shaver; and Shirley B. Humphreys, Stores Department, won a "touch-and-sew" electric sewing machine.

Y-12 awards safety incentive awards in first random drawing

The Oak Ridge Y-12 Plant became the second Nuclear Division plant to exceed its number of required days in the new safety incentive program. (Paducah already passed its 180-day period without a lost time accident recently). Y-12 was required to go 90 days without a lost-time accident to be able to draw for its awards.

A total of 177 employees were awarded handsome items for the period which ended April 18. The random drawing saw William E. Underwood, Frank Patt, and Clyde L. Hill win color television sets. Homer Young took home a mink stole, while Frank Mason and Jack Donathan won riding lawnmowers. Columbus Marable Jr., was awarded an outboard motor, and Tommy R. Webber won a tool set.

Other awards went to:

Fred E. Meyer, Robert B. Cumming, Billy J. Hendrix, Thomas J. Stephens Jr., Charles C. Congdon and Cathrine E. Snyder.

Minnie T. George, Larry E. Barnette, Thomas J. Bentley, John S. Jones, James B. Branum, James H. McCracken, Robert L. Braden, Robert C. McGuffin, David E. Dryden, Lee F. Kennedy, Willard G. McFarland, Harold C. Smith, Jerry W. Vincent and Esbie R. Rogers Jr., Samuel M. Thompson, Malcolm P. Crews, Woodrow W. Onstott, Roy D. Freels, Harry E. Henderson, Robert C. Powell, Lawrence E. Redmon, Richard M. Siler, Winnith R. Malcolm, David A. Jennings, Robert M. Clotfelter, Theo Renner, Robert S. Rogers, Earl E. Canup and Thurman W. Noe. Julius L. Eller, Herman L. Mitchell, Reginald K. Rowell, Carolina Capers, John P. Roymer, Jr., John L. Reagan, Irene Posey, Roy L. Sampsel, Lendon E. Hart, Walter T. Goodwin, Scott W. Minton and William T. Coward.

Bennie F. Alexander, Rubye A. Viator, Russell G. Lawler, Robert E. Thorn-

ton, Jackie L. Hill, Stanley H. Cole, Sam A. McNabb, Chad L. Duckworth, Robert A. Riordan, Emogene B. Griffin, Roy C. Scates, Campbell R. Kelly, James B. Hill Jr., Amos A. Perry and Billie E. Rowland.

Stanley P. Alcorn and Mary K. Mattingly.

Jimmy D. West, Bill S. Leinant, Nathan J. Stonecipher, Robert B. Stonecipher, Fred C. Hancock, Everett P. Braden, Robert C. Weaver, John C. Bryan, James F. Kelley, Ralph L. Stanfill, Fred L. Alexander, Mildred R. Sparks.

James D. Queener, Franklin D. Poland and Floyd Ludwig Jr.

Claude R. Croft, William C. McClain, Robert B. Briggs and Donald A. Gardiner.

Woodford Terry, Lee A. Berry and George G. Kelly.

Lonnie N. Hendrickson, W.R. McGill, James A. Margrave, John E. Davidson and Charles R. Melhorn.

William M. Turner, Patricia A. Ramsay, Raymond E. Plemons, James N. Underwood, Robert M. Keller and Danny P. Rowan.

Cary A. Stanaland, Richard E. Moore, George W. Phipps, Ed Stumpel, George T. Moore Jr., Smith Z. Erris, Bobbie J. White and Susan M. Collier.

Mike S. Bronstein, Jeanne D. Moody, Abram Gosen, Henry L. Fellers Jr., Sam G. Campbell, Bertha M. Melson, Paul A. Evans, J. Ed. White and "Al" L. Williamson.

Cecil Redmon, Shirley B. Humphreys, E.D. Ward, Finley West, William K. Hall, John V. Welch, Millie R. Senatore, Luther H. Finks and Kenneth F. Brown.

Lloyd B. Jones, William W. Thompson, John O. Evans and Noah L. Ensor Jr.

Mike W. Rowland, Dortis F. Francis III, Frank C. Winstead Jr., James A. McCleary, Gordon W. Brewer and Ken R. Bowers.

Missouri bestows honorary degree on ORGDP's Winkel

131769

Robert A. Winkel, Superintendent of the Oak Ridge Gaseous Diffusion Plant, has been awarded an honorary degree as a professional management engineer at the University of Missouri at Rolla.

Along with 10 other honorees, Winkel received the degree in the 100th annual commencement exercise at Rolla at 2 p.m., Sunday, May 13, in the Multi-Purpose Building.

All the recipients have distinguished careers in the field of engineering and the award is made for outstanding contributions they have made in the engineering field.

750 graduate

Graduating exercises were held for more than 750 University of Missouri students who received degrees of bachelor of arts, bachelor of science, master of arts, master of science and doctorates of philosophy.

Winkel, a native of St. Louis, Mo., first joined Union Carbide in January 1944 in New York City on the Manhattan Project.

He was transferred from New York to the gaseous diffusion plant in Oak Ridge as maintenance supervisor. He progressed to department head, then assistant superintendent of the maintenance division, and in February 1951 was transferred to the Paducah Gaseous Diffusion Plant as maintenance division superintendent. In 1957 he was promoted to assistant plant superintendent with responsibilities for



Robert A. Winkel

the plant engineering division as well as the maintenance organizations. In March 1961 he was appointed Superintendent of the Paducah plant, where he remained until June 1972 when he was named Superintendent of ORGDP.

Other activities

While at the Paducah plant, Winkel served as a member of the State of Kentucky Science and Technology Commission, and as chairman of the Kentucky Training and Development Foundation. He was a member of the Kentucky Advisory Council for Technical Services, the Citizen's Advisory Council for Industrial Research at the University of Missouri at Rolla, and the Advisory Council on Science and Technology at Murray State University.

He was director of the Paducah-McCracken County Community Chest, vice-president of the Four-Rivers Boy Scout Council, and a member of the Greater Paducah Chamber of Commerce and the Rotary Club.

He is married to the former Ann Straub, also of St. Louis, and they have five children. The family lives at 100 Carnegie Drive, Oak Ridge.



ASSIST IN DRAWINGS — George R. Beasley, left, Utilities; and Charles R. Lively, Guard Department, assisted in Y-12's big drawings recently, where almost 200 safety awards were given their fellow employees.

'Quality assurance' - a new term for an old concept

73 696



QUALITY ASSURANCE COMMITTEE — Representatives of the Quality Assurance program for the gaseous diffusion plants are, seated from left, J. Leo Waters, coordinator for the Engineering Division; Nate H. Hurt, deputy manager of Goodyear Atomic Corporation, Portsmouth, Ohio; and Edward F. Gambill, coordinator for ORGDP and Paducah. Standing, from left are Eugene A. Waggoner, coordinator at Paducah; Harvey T. Kite, coordinator at Y-12; Edwin H. Kreig Jr., coordinator at ORGDP; and John W. Hofer, coordinator for Goodyear Atomic Corporation.

Most of us are familiar with quality control, either in our work or through advertising of consumer products. Another term, "quality assurance," is beginning to appear frequently. What is quality assurance? What purpose does it serve? Whose responsibility is it? These are just a few of the questions that have come up.

Very simply, quality assurance is the planned and systematic actions necessary to provide adequate confidence that a material, component, system, or facility will perform satisfactorily in service. Quality assurance efforts are directed toward prevention of costly quality failures through appropriate planning.

Three major areas

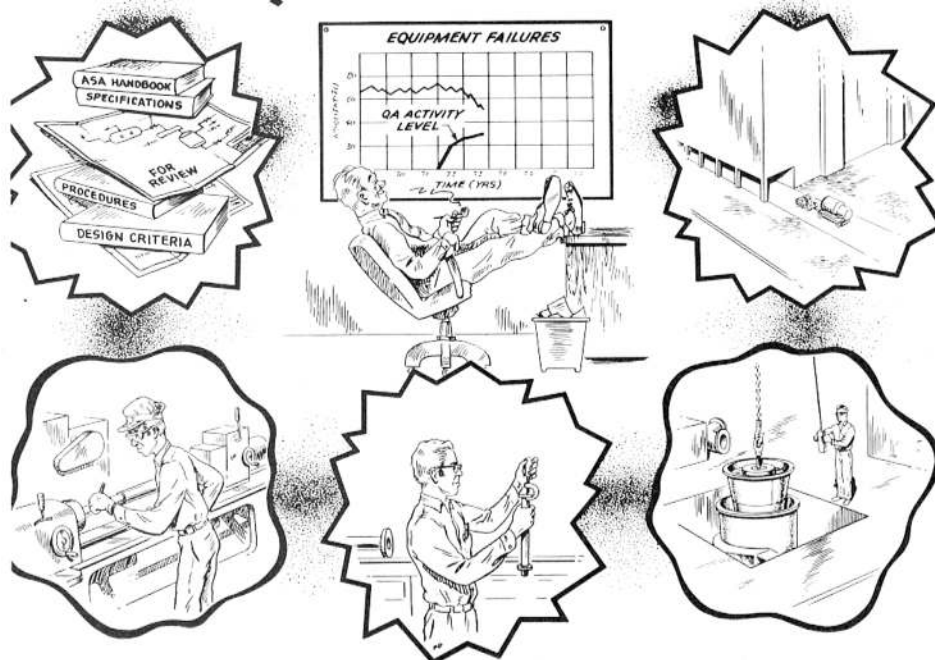
The Nuclear Division quality assurance program has three parts paralleling the

major areas of activity. The ORNL program, coordinated by Frank Neill, places special emphasis on the reactor development and technology activities. The Production Division program, coordinated by Ed Gambill, is in two segments: (1) the weapons-oriented Y-12 production activities and (2) the uranium enrichment activities at ORGDP and Paducah.

This article will introduce the recently-formalized quality assurance program in uranium enrichment.

The Goodyear Atomic Corporation at Portsmouth, Ohio, also participates in the uranium enrichment quality assurance program. Each plant has formed a committee which is chaired by the plant coordinator and includes representatives from each plant division. The plant committee chairmen are Ed Kreig, ORGDP,

QUALITY ASSURANCE



Gene Waggoner, Paducah, and John Hofer, Portsmouth.

Four steps required

The objective of the program is to provide management with evidence that appropriate consideration is being given to quality in each significant area of activity. To do this, four steps are generally required:

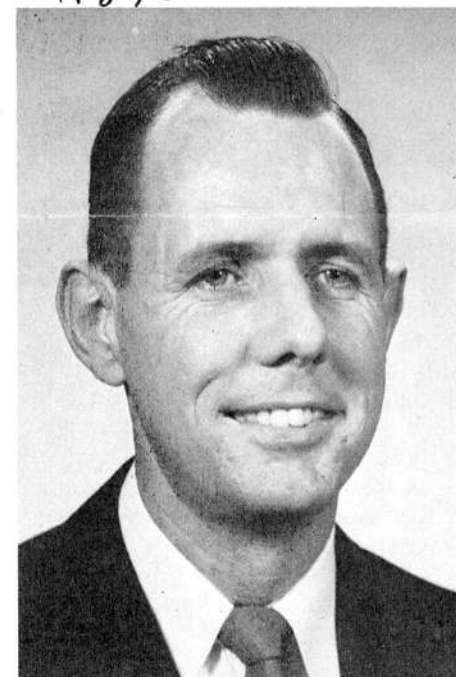
1. Preparation of a quality assurance plan identifying possible trouble areas and defining the steps required to guard against quality problems.
2. Implementation of the plan.
3. Audits which establish that the plan is adequate and is being followed.
4. Reports to management of the audit findings.

In order for a program to be effective, each employee must be aware of and accept his responsibility for quality. Emphasis is on the concept of anticipating and preventing defects as opposed to dependence on inspection and testing after the work is completed.

You will be hearing and reading more about quality assurance. It is applicable to all areas of production activity -- development, engineering, procurement, construction, manufacturing, fabrication and assembly, operation, and maintenance. It is "everybody's business."

ORNL's McClung elected to fellowship in ASNT

11870



McClung

Robert W. McClung, a group leader in the Metals and Ceramics Division at ORNL, has been elected to the status of Fellow of the American Society for Nondestructive Testing (ASNT).

Fellowship in the ASNT is awarded by majority vote and action of the Board of Directors to a member of the Society. The member must be one of unusual professional distinction who has made continued significant contributions to the advancement of the nondestructive testing and evaluation in areas such as management, engineering, science, education, administration and planning.

McClung joined the Union Carbide staff in 1950. In addition to the ASNT, McClung holds membership in the American Society for Metals and the American Society for Testing and Materials (ASTM). He is chairman of Committee E-7 of ASTM, and is the U.S. representative to the Working Group on Nondestructive Testing of the International Atomic Energy Agency.

McClung, who was recipient of the Coolidge Award of ASNT in 1962, has authored over 70 publications in the field of nondestructive testing.

Paducah daughter tapped for Illinois U. honors

Candace Gail Pratt was tapped recently in surprise ceremonies to join the University of Illinois Chapter of Mortar Board. Selection to the Mortar Board is one of the highest honors which can be conferred upon a collegiate woman.

Selection is based on excellence in scholarship, proven outstanding leadership, and significant service to the campus community. A second-term junior, Miss Pratt has a 4.5 out of a possible 5 point grade standing. She is a home economics major, specializing in food science and research.

Miss Pratt's father is in Paducah's Instrument Engineering Department.



Miss Pratt



FOUR-RIVER CLEAN-UP — The Paducah Gaseous Diffusion Plant recently donated 6,000 Glad disposal trash bags to the Boy and Girl Scouts of the Four-River Council in their county and city civic beautification efforts. Making the presentation above was Clyde C. Hopkins, Plant Superintendent; Mrs. James Sanders Jr., chairman of the Civic Beautification Board; Mrs. H.J. Ullerich, Girl Scout representative; and Mrs. Thomas Lyons, council representative.

DIVISION Retirees



Asbury

Cottrell

Carson

Ingram



Perry



Terry



Miss Wallis

Three Y-12ers retire at the end of April, marking long Union Carbide careers.

Warren H. Asbury, Graphite Shop, came to Y-12 in 1954. He lives on Hazelnut Drive, Knoxville.

John W. Cottrell, Chemical Services, joined Union Carbide in 1948. He lives at 121 Beverly Circle, Oak Ridge.

John L. Perry, Dimensional Inspection, lives at Route 2, Buttermilk Road, Kingston. He came here in 1944. His wife, Anna, works in Y-12's Laboratory.

Four Oak Ridge Gaseous Diffusion Plant employees end long careers with Union Carbide at the end of May.

Retiring are Donald R. Carson, Ralph G. Ingram, Clyde L. Terry Sr., and Pauline Wallis.

Donald R. Carson, accounting analyst in the Operations Division at ORGDP, joined Union Carbide in 1950. He lives at 332 East Fairview Road, Oak Ridge.

Ralph G. Ingram, an area foreman in Operations at ORGDP, joined Union Carbide at South Charleston in 1929. He will leave this month with more than 43 years company service!

Ingram transferred to Oak Ridge in 1944, and lives at 112 Pomona Road, Oak Ridge. His wife is the former Ruby McGill, and they have five children: Larry, Lonnie, Ralph, Nancy and Carol Morton. They also have three grandchildren.

Clyde L. Terry Sr., a craft foreman in Maintenance at ORGDP, lives at 213 Virginia Road, Oak Ridge. He came with Union Carbide in 1945.

Pauline Wallis, Purchasing, lives at Niota, Tenn., where she was born. She joined Union Carbide in 1947, after working for Monsanto and Tennessee Eastman. She worked in their purchasing division also.

Miss Wallis looks after her mother at Niota.

ORNL

Lloyd F. Bruce, a pipefitter in the Plant and Equipment Division, took early retirement May 1. He had been employed by Carbide for over 21 years. The Bruce home is at 119 S. Walker Lane, Oak Ridge.

OUR LITTLE SPACE SHIP

"We travel together, passengers on a little space ship, dependent on its vulnerable supplies of air and soil... preserved from annihilation only by the care, the work, and... the love we give our fragile craft."

Adlai Stevenson

Three promotions announced at gaseous diffusion plants

Three promotions are announced in the gaseous diffusion plants, one in Paducah and two in Oak Ridge.

Norman L. Blakely has been named a maintenance foreman at the Paducah Gaseous Diffusion Plant.

Blakely lives with his wife, Temperance, at 2621 Monroe Street, Paducah. They have two sons, Gerald and Steven. Blakely enjoys golf, boating and other outdoor sports.

At Oak Ridge, Jack L. Finchum has been named an associate design engineer in Instrument Engineering. He came with ORGDP a year ago and co-opped at Chattanooga with the Tennessee Valley Authority. He has a B.S. degree in engineering physics from The University of Tennessee.

Finchum, who is single, lives at 167 Johnson Road, Oak Ridge. He enjoys hiking and volleyball.

John H. Purnell has been named a maintenance planning specialist in Maintenance Engineering. He has been at ORGDP one year. A native of Newark, Md., he attended Morristown College and The University of Tennessee.



Finchum

Purnell



Blakely

Purnell and his wife, Sheila, who works in Y-12's Classification and Information section, live at 108 Prairie Lane, Oak Ridge. They have a son, John Eric.

Nuclear Division deaths

John A. Bell, ORGDP Utilities Operations, died May 1 at his 2808 Hackman Street, Knoxville, home.

Mr. Bell joined Union Carbide in 1944.



Mr. Bell

He was a native of Tellico Plains.

Survivors include his wife, Mrs. Sadie Fritts Bell; a son, John J. Bell; a daughter, Glenda Bell; four sisters; and two grandchildren.

Funeral services were held at Berry's Funeral Chapel, Knoxville, with the Rev. Glenn Mulkey and the Rev. Bill Llewellyn officiating. Burial was in the cemetery at New Providence Baptist Church, Tellico Plains.

D.L. Moore, a guard at Y-12 since 1968, died in a Knoxville hospital April 27.



Mr. Moore

A veteran of the U.S. Army, Mr. Moore served during the Korean War. He was a native of Niota.

Survivors include his mother, Mrs. Hattie Moore, a daughter, Mrs. Irma Cunningham; four sisters and a brother.

His home was at 2816D Badgett Drive, Knoxville.

Funeral services were held at the True Vine Baptist Church, with the Rev. Howard S. McClellan officiating. Burial was in the Hammond Cemetery, Athens.

FORMER Y-12 ENGINEER

William C. Hudson, formerly in Y-12's Engineering, died May 5 at the Oak Ridge Hospital. He lived at 703 West Vanderbilt Drive, Oak Ridge, and is survived by two

sons and a daughter; four sisters and six grandchildren. The funeral was held in Troy, Ala.

Millard F. Maples, Y-12's Fabrication Division, died May 5 in a Knoxville hospital.



Mr. Maples

A native of Claxton, Mr. Maples was a veteran of the U.S. Army, serving in both Korea and Vietnam. He joined Union Carbide in 1969.

Survivors include his wife Mrs. Delores Morris Maples, Lenoir City; his parents, Mr. and Mrs. Willard Maples; a sister, and four brothers.

Funeral services were held at the Click Funeral Chapel with burial in Mount Pleasant Cemetery. The Rev. Clarence Sexton and the Rev. Dan Murphy officiated.

Talmadge Bowman, Oak Ridge Gaseous Diffusion Plant Laundry, died at the Rockwood Hospital May 5.

He was a veteran of World War II, and came with Union Carbide in 1946.



Mr. Bowman

Survivors include his wife, Mrs. Bonnie Simcox Bowman, 201 North Patton Avenue, Rockwood; a son, Norman Bowman; daughters, Mrs. Bennett Gould and Tamera Bowman; two brothers and a sister.

Funeral services were held at the Bilbrey Chapel in Crossville with the Rev. Robert Campbell officiating. Burial was in the Green Acres Memory Gardens in Crossville.

COMPANY SERVICE

—20-25-30—

ORNL 30 YEARS



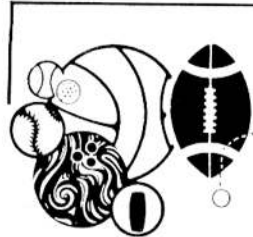
James I. Ezell came to work for DuPont on May 3, 1943. He is currently a captain in the Guard and Fire Department of the Laboratory Protection Division. In his spare time, Ezell enjoys fishing, hunting and traveling. He lives with his wife, Iva, on Beaver Creek Drive in Powell.

25 YEARS

Eugene H. Bates, Allan H. Petree, Edwin D. Kerns, Albert F. Zulliger, Elmer L. Glandon, O. Lucille Kuykendall and Lyle G. Overholser.

20 YEARS

James A. Worth, Frank L. Peishel, Boyce M. Boyer, Raymond F. Long, William W. Stringer and James H. Denton.



RECREATIONOTES

ORGDP GOLF

Alvin Boatwright captured ORGDP's first golf tournament of the year at Whittle Springs, firing a two-under-par 70. He was followed by Dave Lannom with a 79. Handicap winners in division one were R.E. Nier and Loyd Kahler, with 78 and 79 each. Frank Copeland counted nine pars.

Division two went to Gerry Boroughs with a 78 and to R.S. Eby who fired an 82 handicap total. Larry Patrick, Henry McBride and George Miller all had six pars.

A 91 fired by R.C. Willoughby took division three, with W.L. Goodwin's 93 handicap being low in that division. Harold Sigmon, J.W. Davenport and J.M. Hudson counted three pars.

PADUCAH SWIMMING PROGRAM

The Recreation Department at Paducah announces the start-up of the "family style" swimming program Saturday mornings at the Bob Noble Swimming Pool. Hours are from 9 a.m. to 12 noon, and begin June 23, to continue through August 25. Pool management, lifeguards and baskets will be furnished. This is an informal fun session for the entire family, as there is a large "adult" pool and a toddler wading pool with a sun deck for the non-swimming sun-worshippers.

HORSESHOE LEAGUE

The Recreation Department states a horseshoe league will be formed if enough interest is shown. Two-men team entries should be telephoned to them, extension 3-5833.

ORNL FISHING RODEOS

Fishing rodeos were held last month by two groups of shift employees at ORNL.

Shift B held a fishing rodeo at Blue Springs Dock. Eight of the twenty employees who participated received prizes. Winners were Calvin Fouse, Charles Thomas, Roger Jones, Eugene Smith, William Smith, George Pearson, Harvey Smith and Woodford Spencer. Thomas' name was also drawn for the door prize, making him a two-time winner.

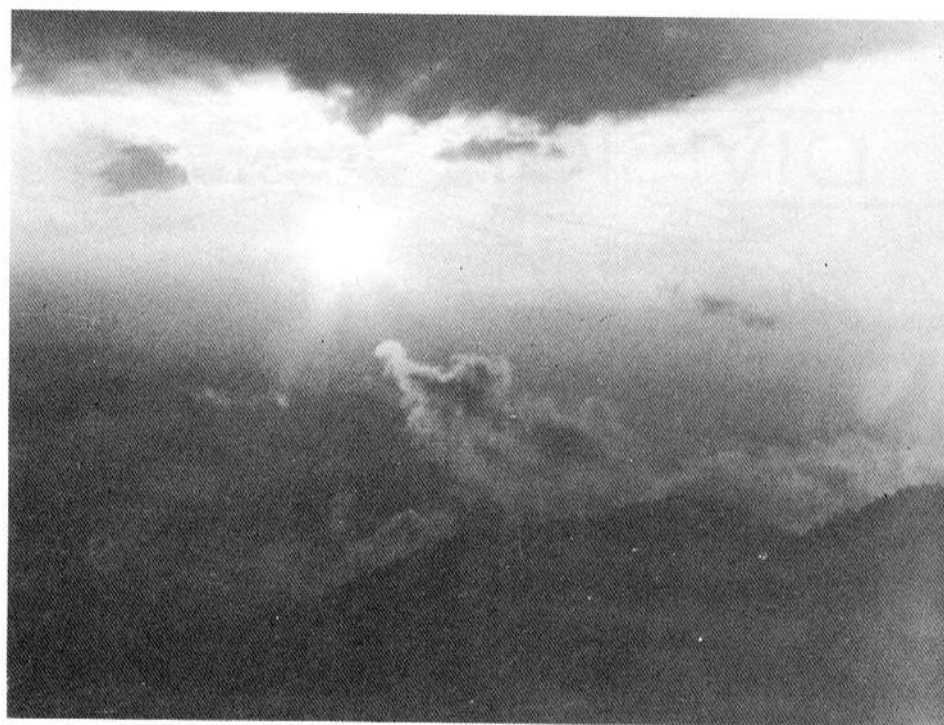
Employees of the straight evening shift were allowed to fish at the lake of their choice. Fish were weighed and prizes were awarded at the White Wing Bridge parking area below Melton Hill Dam. Receiving prizes were Roy Campbell, Roy Webber, Hutchinson Calloway, John Dye, William Childress, Beryl Justice, Matthew Mills and Boss Davison.

ORNL GOLF

ORNL golfers braved the chill of April 28 to fight the rugged, yet scenic, greens at Gatlinburg, where high scores are usually the rule of the day. Henry Tuck captured division one with a 78, while J.D. Hudson was his nearest opponent with 85.

Jim Hickey scored high handicap in the first division with a tie in there with Grady Whitman. Joe Luckett parred six holes at the Smokies greens.

E.L. Olson and Frank Hammerling took division two with scores of 85 and 88. Division three went to J.W. Prewitt and C.H. Tucker.



CLOUD NINE — Peggy Turner's color print of a sunset from Mt. LeConte won her the best-of-show in color prints recently, taking first place in the Carbide Camera Club's competition.

CARBIDE SKEET LEAGUE

Bob Allstun scored a perfect count of 50.000 to take April's skeet firings. George Kwiecien scored second with a 48.770; and H.P. Prewett came in third with a 48.753. Bert Searles and Carl Brewster fired under penalties from previous winnings.

Y-12 GOLF

Bob Carmack's two under par took the Y-12 race at Wallace Hills April 28. His nearest opponents were Jim George and Charley Gaylor, each with 79. W.H. Tipton and Rick Gallman tied for handicap lows in division one. Rick Sharp counted 12 pars.

Division two went to Bill Everett with 83, and Ben Miller's 84 was handicap low. C.G. Jones had six pars.

Division three was held by Joe Sherrod with an 86, and Micky Woody with an 87 handicap score. J.J. Sewell, T.A. Chaney and Ron McElhaney all had four pars.

Spence Ferguson's 97 was low in the last division; with Ed Ball tallying a 97 handicap score. Ted Walton had a total of four pars.

Foreign travel

The following ORNL employees were on foreign travel status recently:

Loucas G. Christophorou, Health Physics Division, participated in the Miller Conference 1973 in Portmeirion, North Wales, April 9-13. He presented two papers: "Mobilities of Thermal Electrons in Gases and Liquids", and "Electron Capture by Biomolecular Systems."

William W. Parkinson Jr., Health Physics Division, and Robert A. Weeks, Solid State Division, attended the Second Cairo Solid State Conference on Recent Advances in the Science and Technology of Materials in Cairo, Egypt, April 21-26. Parkinson presented a paper entitled, "The Effect of Polar Groups on the Post-Irradiation Conductivity of Polystyrene."

In addition to presenting a paper, "Point Defects of Some Unary, Binary and Ternary Oxides," at the Conference, Weeks gave seminars at Ecole Polytechnique, Lausanne, Switzerland and at the University of Marburg, Germany, on "Magnetic Resonance of Defects in Silicates" and "Magnetic Resonance of Transition Series Ions in Silicates," respectively. He also presented a seminar on "Ferromagnetic Resonance of Ferrite Particles" at the University of Newcastle, England, prior to the conference.

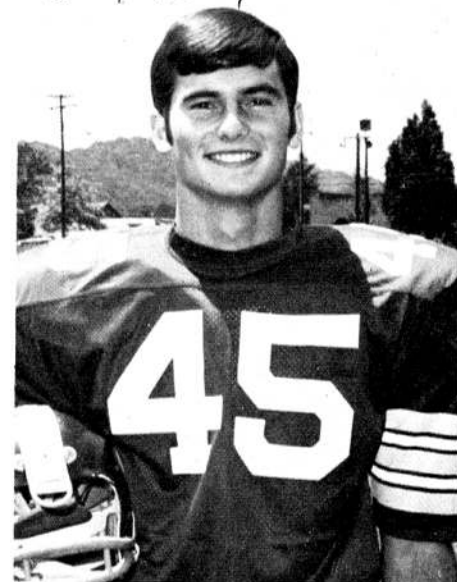
George D. Kerr, Health Physics Division, visited Hiroshima and Nagasaki, Japan, to continue the Ichiban liaison studies and present estimates of dose received by survivors in the United States to the Atomic Bomb Casualty Commission. The trip was scheduled for April 12 - May 31.

Robert J. Preston, Biology Division, visited the Medical Research Council Radiobiology Unit, Harwell, England, May 7-11. He presented a seminar on "Genetic Hazards of Ionizing Radiations: Cytogenetic Extrapolations from Mouse to Man."



BEST BLACK/WHITE PRINT — Sidney Siegel's portrait of St. Francis Xavier Cathedral placed him in the forefront of the Carbide Camera Club's recent competition in black and white photography.

Naval Academy for Diggs son 6-19379



Tommy Diggs

Tommy Diggs has been selected to attend the U.S. Naval Academy at Annapolis, Md., where he will play football. He was an outstanding split end for the Oak Ridge Wildcats.

The six-foot, two-inches-tall Diggs is the son of Betsy Diggs, ORNL Mathematics Division; and Tom Diggs, Estimating Engineering at ORGDP. They live at Oliver Springs. The appointment came through the office of Rep. Robert H. Michel, from Illinois.

Memo on shaving efficiency



By T. A. Lincoln, M.D.

Gentlemen:

Nowadays, with money tight, inflation continuing, and competition keen, efficiency has gained new status in business and industry. Shaving is a fairly trivial activity as far as economic efficiency is concerned, yet no activity should be overlooked to improve efficiency! Most men's shaving habits are unphysiological and inefficient. Please review the following information and act accordingly.

A basic assumption still maintained by most men is that the clean-shaven face is the most acceptable standard in our society. A completely unmanaged growth of facial hair can be safely enjoyed by only a few self-sufficient and independent men. In spite of this, moustaches, sideburns, and trimmed beards are becoming increasingly attractive, especially to young people.

Beard requires time

The ones with the hairy faces may claim that no shaving at all is the most efficient way since no time is "wasted" on a "useless" activity. However, they need to consider the amount of time devoted to trimming a moustache or beard. It is not inconsequential. The trimming, preening, waxing, and caressing of the facial hair that goes on before the mirror probably, for some, exceeds the time for a clean shave.

Before complaining about the physiological inefficiencies of most men's shaving habits, it is necessary to review some background data. Forty men, selected more or less at random from visitors, workers, and patients who came through the ORNL Dispensary on May 4, were asked a few quick questions about how and when they shaved. Since 80 percent said that they had not changed their routine frequency or method of shaving in the past ten years, shavers are apparently fairly fixed in their habits. Thirty-one out of the 40 used a safety razor and only nine an electric razor.

All but one shaved once a day, all but five shaved first thing in the morning, and almost half of them used a hot wash cloth application, either before or during the preparation of their faces for shaving. Of these three practices, only daily shaving is logical.

Standing helps

In 1955, D. Verel from the Medical Unit, London Hospital, reported on the variations in the amount of whiskers removed at different times of day using a standardized razor technique. In his experiment, the overnight accumulation at 7 a.m. was discarded. Additional shaves were performed at 11 a.m. and at 3 p.m. and were carefully weighed. The first four-hour yield was consistently two to three times heavier than the second. At first, he thought that the hair grew faster early in the day. He soon found that the

difference was due to a change in thickness of the skin after standing.

Overnight, while sleeping, there is a more uniform distribution of water in the skin. After standing the skin of the face gets thinner. People who have experienced mild swelling of their ankles toward the end of a day of standing can appreciate this redistribution of tissue fluid.

Salt solution?

The whisker protrudes from the hair follicle through the skin. If the skin is thick, as it is in the morning, less will protrude so less will be cut when the blade glides over the surface. Later, when the skin has thinned out, more whisker will be exposed. Even waiting until after breakfast before shaving will allow an appreciably longer lasting shave. In Verel's studies of the skin thickness of the ear lobe, he found that thinning occurred fairly rapidly after standing - .2 mm in half an hour. Since the average beard grows about .5 mm a day, and assuming the face skin changes the same as the ear lobe, waiting a half hour after arising could conceivably increase a person's shaving efficiency 40 percent. That's probably overly optimistic, but even a 10 percent increase is worth the effort to make a change.

Hot applications of any kind may soften the whiskers but they increase the thickness of the skin due to absorption of water. Applying cold to the face would be more logical since it reduces swelling. Another way to thin the skin might be to use a salty lather. The salt solution would tend to draw moisture out of the face.

Sex activity

An enterprising but anonymous scientist, whose reliability was certified by several colleagues who reviewed his manuscript, had a paper published in *Nature* in 1970 on the effect of sexual activity on beard growth. He carefully collected and weighed the shavings from the head of an electric razor at the same time once each 24 hours. Apparently in his research he was located on an island isolated from any sexual stimuli for periods of several weeks. The day before he returned to the mainland for a weekend, his beard started growing rapidly in anticipation of sexual gratification. It then declined rapidly after a couple of days spent with a female partner (he didn't say wife!). He repeated his observations ten times. It has long been known that beard growth is strongly influenced by the male hormone and sexual activity after abstinence stimulates an outpouring of hormone which then rapidly subsides.

So, gentlemen, here is what we must do to improve our shaving efficiency. Get up earlier, stand for at least 30 minutes, and preferably an hour, before shaving. Do not use any hot applications of any kind. Limit your sexual stimuli to early in the weekends so maximum beard growth will occur on Saturday and Sunday.

We'll expect a report on your progress by June 15!

THE LAST WORD

They've formed a new group called Marriage Anonymous - for divorced men. Whenever a man member feels like getting married again, they send over a woman in a housecoat and hair curlers.



SECRETARY-OF-THE-YEAR — Paducah Plant's Velva K. Blayney was named secretary-of-the-year at the Paducah-Kentucky Lake Chapter of National Secretaries Association recently. She is seen with boss-of-the-year William C. Taylor, in Plant Engineering.



SECRETARY-OF-THE-YEAR — Genevieve Warren, left, is presented a secretary-of-the-year plaque by Norma Ivy, selection committee member of the Mayfield Chapter of National Secretaries Association. Mrs. Warren was the chapter's first president.

Two Paducahans earn coveted 'secretary - of - the - year' titles

Two Paducah employees were recently selected as "secretaries-of-the-year" in two different ceremonies. Velva K. Blayney was so named at the annual award dinner of the Paducah-Kentucky Lake Chapter of the National Association of Secretaries, while Genevieve B. Warren was so honored by the Mayfield Chapter.

Mrs. Blayney is a charter member of the Paducah chapter, and has held many offices in the past, and has participated in various seminars sponsored by NSA. She and her husband, Joe, live at 2909 Broadway, Paducah.

Mrs. Warren has been active in the Mayfield Chapter since its inception, and was its first president. She and her husband, Frank, live at Route 4, Mayfield.

The nationwide annual meetings of NSA are held with the bosses invited and awards of both "boss-of-the-year" and "secretary-of-the-year" are given out. Candidates for the awards are made by the membership, and winning is based on points covering educational attainment,

business experience, advancement, participation in NSA activities and other civic contributions.

Clyde C. Hopkins, superintendent at the Paducah Plant, stated that he was impressed with NSA's efforts to upgrade the profession. "Many secretaries are satisfied to fulfill their duties without thought of improving their skills. I am elated that our secretaries at Union Carbide are not in that category. In addition to the two UCC secretaries in the Mayfield Chapter, we have 15 in the Paducah-Kentucky Lake Chapter."

WARNING SIGNAL

The woman over 40, the woman in her change of life, should be alert to unusual bleeding or discharge. It's probably not, but could be a sign of uterine cancer — but only a physician can make the diagnosis. Give him a chance, urges the American Cancer Society. It could save your life.

CALENDAR of EVENTS

TECHNICAL

May 21

Biology Division Seminar: "Cyclic AMP in Escherichia Coli," Howard Rickenberg, National Jewish Hospital and Research Center. Large Conference Room, Building 9207, Y-12, 3 p.m.

May 22

UT-Department of Chemistry General Seminar: "New Heterocyclic Aromatic Compounds," Prof. Arthur Ashe, University of Michigan. 414 Beuhler Hall, UT Campus, 4 p.m.

May 23

Chemical Technology Division Seminar: "Thoughts Concerning Design Basic Accident," and "Concept for a Low Performance, Interim Use Cask." A.R. Irvine; "Impact Resistance; Experience and Capability," J.H. Evans; and "Fire Resistance Capability," and "Dowtherm Heat Transport and Chemical Compatibility," L.B. Shappert. Central Auditorium, Building 4500N, 3 p.m.

May 30

Chemical Technology Division Seminar: "Aspects of a Commercial LMFB Fuel Reprocessing Plant," A.R. Irvine, E.L. Nicholson, and O.O. Yarbrough. Central Auditorium, Building 4500N, 3 p.m.

June 4-8

Biennial Conference on Carbon: Riverside Motor Lodge, Gatlinburg.

COMMUNITY

May 19

Oak Ridge Playhouse annual spring meeting and party. 8:30 p.m.

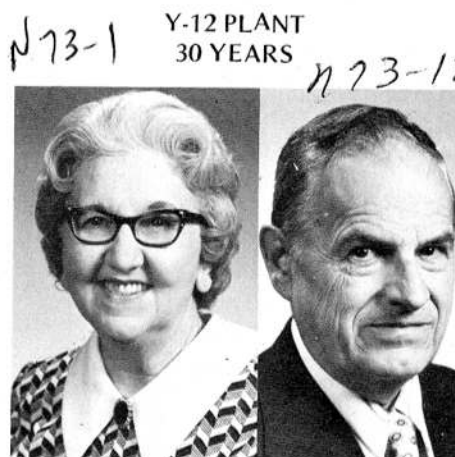
May 17-30

Oak Ridge Art Center presents: "The New Eye in Chinese Painting." Regular Art Center hours.

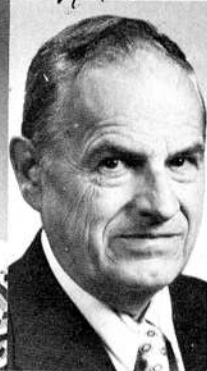
May 25-27

Oak Ridge Playhouse presents studio theater productions: "Balls" and "The Great American Desert." Free to members. Non-member adults, \$1.50; non-member students, \$.75. 8:20 p.m.

COMPANY SERVICE 20-25-30



Miss Conner



Little

Maola Conner is Y-12's first woman to reach a 30th anniversary with Union Carbide, hiring in May 17, 1943. A native of Lenoir City, she taught school with the Loudon County school system before coming to Oak Ridge. She still lives there at 501 West 5th Avenue.

James C. Little, consulting engineering in Y-12, was also an early arrival in Oak Ridge, hiring in on May 17, 1943. He presently lives on Cherokee Boulevard, Knoxville.

25 YEARS

Edward E. Turner, Ralph A. Wilson Jr., Oscar W. Patrick Sr., Edward F. Sise, James T. Reel, Cleveland O. Mathena and Pauline S. Goodwin.

20 YEARS

Virgil T. Callaway, Arthur I. Johnston, Joseph Delmonte Jr., John R. Baumgarner, Naomi T. Hart, Rhea V. Harrell, Julius L. Eller, Thurston L. Boshears, Emory E. Denham, Austin A. Crabtree, Clarence C. Crisp and Clinton N. Cagle.

PADUCAH 20 YEARS

Harvey L. Key.



Mrs. Cox



Tunnell

Margaret I. Cox, Telecommunications, was the first telephone operator on the job at Oak Ridge. She hired in March 29, 1943, after her husband's death. They lived in Norris prior to that.

Mrs. Cox presently lives at 3100 Silverwood Road, Knoxville. She is a native of Rutledge, but grew up in Knoxville.

William C. Tunnell, ORGDP's Machine Design in the Engineering Division, hired in May 2, 1943, and worked five months at Berkeley, Calif., before coming to the Oak Ridge area. He recently joined the ORGDP group. He served for eight years on the Oak Ridge City Council, and lives at 104 Ditman Lane.

25 YEARS

Martha B. Arp, Jessie B. Arnold, Gladys R. Lassiter, Blanche P. Thompson, Wilma R. Edwards and Cornelius H. Hilemon.

20 YEARS

Emerson L. Arnold, John D. Hart and Charles W. Weber.

Ezell

GETTING ON

"In America, getting on in the world means getting out of the world we have known before."

Ellery Sedgwick



Mrs. Pope

Bettye Pope, NSA member of year

Bettye L. Pope, of ORNL's Thermonuclear Division, was recently selected "Member of the Year" by the Oak Ridge Chapter of the National Secretaries Association. According to Rebecca Rickman, president of the chapter, Mrs. Pope was chosen on the basis of her contribution to chapter activities, promotion of education and active participation in the NSA on all levels.

Mrs. Pope came to work for Union Carbide in 1947. She is a graduate of Edmondson's Business College in Chattanooga, and has taken courses at The University of Tennessee Evening School. She has also taken many of the courses sponsored by the Oak Ridge Chapter - NSA.

Since becoming a member of the NSA in 1965, Mrs. Pope has served as board member and corresponding secretary. She was recently elected vice president for the coming year.

Mrs. Pope has three daughters and six grandchildren. One daughter, Cindy, is a senior at The University of Tennessee. She and her husband, Jim, who works at ORGDP, live at 100 Potomac Circle, Oak Ridge.

MAY 28 HOLIDAY

Monday, May 28 is an official holiday for all Nuclear Division employees, both in Paducah and Oak Ridge, as we celebrate one of the new federal holidays... Memorial Day.

No employee will be required to work, unless his presence is required by security or continuous operations.

FORMER PADUCAH EMPLOYEE

W. Pat Berry, former Paducah employee, died at his home in Reidland, Ky. May 1. A native of Knoxville, Mr. Berry worked at the Oak Ridge Gaseous Diffusion Plant, before transferring to Paducah 21 years ago. Funeral services were held at the Roth Funeral Chapel, with burial in Woodlawn Cemetery, Knoxville.

PATENT GRANTED

To Julian P. Breillatt Jr., ORNL, for "Fibrous Filbrin Sheet and Method for Producing Same."



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